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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/732,740      | 12/11/2000  | Shohjiroh Tanase     | 200592US0X          | 2333             |

22850 7590 11/18/2003

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| EXAMINER |
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CHOI, LING SIU

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|


1713

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

ab14

# Office Action Summary

|                                      |                                      |   |
|--------------------------------------|--------------------------------------|---|
| Application No.<br><b>09/732,740</b> | Applicant(s)<br><b>Tanase et al.</b> |   |
| Examiner<br><b>Ling-Siu Choi</b>     | Art Unit<br><b>1713</b>              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Aug 18, 2003
- 2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above, claim(s) 5-7 and 12-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-11, and 23-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some\* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                              | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ | 6) <input type="checkbox"/> Other: _____                                    |

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### **DETAILED ACTION**

1. This Office Action is in response to the Amendment filed August 18, 2003. Claims 30-36 have been added and claims 1-36 are now pending, wherein claims 5-7 and 12-22 were withdrawn from consideration due to the election/restriction requirement. Rejection of claims 1-3, 8-10, and 23-29 under 35 U.S.C. 103(a) by Mehta (US 4,820,672) is removed; rejection of claims 1-3, 8-10, and 23-29 under 35 U.S.C. 103(a) and 4 and 11 under 35 U.S.C. 102/103 by Murata et al. (US 4,960,743) are maintained.

### ***Claim Rejections***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior

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art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

***Claim Rejections - 35 USC § 102/103***

4. Claims 4, 11, and 36 are rejected under 35 U.S.C. 102 (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Murata et al. (US 4,960,743).

The present invention relates to

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|---|
| a solid magnesium compound substantially comprising a <b>magnesium dialkoxide</b> |
|---|

|  |
|--|
| particle size distribution index $[P = (D_{90}/D_{10})] < 4.0$ |
|--|

(summary of claim 11)

Murata et al. disclose a magnesium compound obtained by reacting (a) magnesium metal, (b) a halogenated hydrocarbon of RX, (c) a compound of  $X_n^1M(OR^1)_{m-n}$ , and (d) a halogen-containing alcohol, wherein "the amount of the halogenated hydrocarbon to be used is desired to fall in the range of 1 to 2 moles per gram atom of magnesium" and wherein the contact temperature for components (a), (b), and (c) falls into the range of 0°-250°C and the contact temperature for the resulting product and component (d) falls into the range of -20°C to 150°C (Abstract; col. 5, lines 16-24 and 62-64; claim 1). Attention is directed to Examples 11 and 12, wherein the **molar ratio of Mg to halide is 0.8/0.7 and 0.8/0.5**, respectively. A conclusion can

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then be drawn that the resulting magnesium compounds obtained in Examples 11 and 12 would be magnesium dialkoxides. However, Murata et al. are silent on the particle size distribution index being less than 4. In view of the substantially similar method used to make the magnesium compound, the Examiner has a reasonable base to believe that the resulting magnesium compound would possess the claimed particle size distribution index. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. **In re Best**, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); **In re Fitzgerald**, 205 USPQ 594 (CCPA 1980).

***Claim Rejections - 35 USC § 103***

5. Claims 1-3, 8-10, and 23-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murata et al. (US 4,960,743).

The present invention relates to

|  |  |
|--|--|
| magnesium compound substantially comprising magnesium dialkoxide             |  |
| process at 30-60°C   | a magnesium metal                              |
|  | an alcohol                                     |
|  | a halogen and/or a halogen-containing compound |
| wherein the gram atoms ratio of halogen atom to magnesium is at least 0.0001 |  |

( summary of claim 1)

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Murata et al. disclose a magnesium compound obtained by reacting (a) magnesium metal, (b) a halogenated hydrocarbon of  $RX$ , (c) a compound of  $X_n^1M(OR^1)_{m-n}$ , and (d) a halogen-containing alcohol, wherein "the amount of the halogenated hydrocarbon to be used is desired to fall in the range of 1 to 2 moles per gram atom of magnesium" (abstract; col. 5, lines 16-18; claim 1). Murata et al. further disclose that the contact temperature for components (a), (b), and (c) falls in the range of  $0^\circ$ - $250^\circ\text{C}$  and the contact temperature for the resulting product and component (d) falls in the range of  $-20^\circ\text{C}$  to  $150^\circ\text{C}$  (col. 5, lines 19-24 and 62-64). Attention is directed to Example 1, wherein the magnesium compound is prepared by the steps of (a) contacting **magnesium metal** chips a methyl iodide solution having 10% of **iodine**, (b) further contacting with **n-butyl chloride** to form a magnesium-containing solid, and (c) contacting the magnesium-containing solid with 2,2,2-trichloroethanol to form the magnesium compound, which has a particle size distribution (PSDI) of **0.31**. Attention is also directed to Examples 11 and 12, wherein the **molar ratio of Mg to halide is 0.8/0.7 and 0.8/0.5**, respectively. Thus, the resulting magnesium compounds obtained in Examples 11 and 12 would be magnesium dialkoxides.

The difference between the present claims and the disclosure of Murata et al. is the requirement of a halogen and/or a halogen-containing metal compound being used to form the solid magnesium compound.

It is noted that the present claims are drawn to product-by-process claims. The case law holds that "[T]he patentability of a product does not depend on its method of production. If the

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product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695,698, 227 USPQ 964, 966 (Fed.Cir. 1985).

***Response to the Applicants' Arguments***

6. Applicants' Amendment filed August 18, 2003 have been fully considered but they are not persuasive.

The present claims were amended by citing the magnesium compound to essentially consisting of magnesium dialkoxide. However, in view of Examples 11 and 12, wherein the molar ratio of Mg to halide is 0.8/0.7 and 0.8/0.5, respectively, which suggests that the resulting magnesium compounds obtained in Examples 11 and 12 would be magnesium dialkoxides. Thus, the rejection of claims 1-3, 8-10, and 23-29 under 35 U.S.C. 103(a) and 4 and 11 under 35 U.S.C. 102/103 by Murata et al. (US 4,960,743) are maintained.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

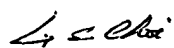
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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is (703)305-0887.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (703)308-2450.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703)308-2351.



Ling-Siu Choi

November 15, 2003